

ABSTRACT OF THE DISCLOSURE

An interprocess communications platform enables individual processes to request and exchange data in a shared memory space, mediated by a communications engine. Processes, such as applications or other software running under an operating system or in a network, register to blocks of a shared memory space via an administrative memory space which tracks pointers, handles and other indicators of memory areas populated by individual processes. When one process requests access to a variable, pointer or other data generated by another process, the request is mediated by the communications engine. The communications engine may locate the target data belonging to the other process in the shared memory space, via a lookup of relative addressing in a separate administrative memory space. The communications engine, memory management objects and other resources may then lock the portion of the shared memory space allocated to the target process to permit the requesting process to access the data. Data may therefore be exchange between given processes while maintaining data integrity, and also may be cached in the shared memory space or elsewhere by the communications engine to further increase efficiency. Available memory in the shared memory space may be managed using the so-called buddy system or other heap or other management techniques. No named pipes or similar mechanisms under an operating system need be invoked.